

From the:  
INTERNATIONAL SEARCHING AUTHORITY

To:

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**PCT**

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing  
(day/month/year) 5 OCT 2004

Applicant's or agent's file reference  
1138P04PCTj

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
**PCT/SG2004/000255**

International filing date (day/month/year)  
23 August 2004

Priority date (day/month/year)  
23 October 2003

International Patent Classification (IPC) or both national classification and IPC  
Int. Cl. <sup>7</sup> G06F 13/30, H04M 1/66

Applicant  
NANYANG POLYTECHNIC et al

1. This opinion contains indications relating to the following items:

- |                                     |              |  |
|-------------------------------------|--------------|--|
| <input checked="" type="checkbox"/> | Box No. I    | Basis of the opinion   |
| <input type="checkbox"/>            | Box No. II   | Priority   |
| <input type="checkbox"/>            | Box No. III  | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability   |
| <input type="checkbox"/>            | Box No. IV   | Lack of unity of invention   |
| <input checked="" type="checkbox"/> | Box No. V    | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/>            | Box No. VI   | Certain documents cited  |
| <input type="checkbox"/>            | Box No. VII  | Certain defects in the international application   |
| <input checked="" type="checkbox"/> | Box No. VIII | Certain observations on the international application  |

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the IPEA/AU  
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Box No. I      Basis of the opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.  
☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material  
☐ a sequence listing  
☐ table(s) related to the sequence listing
  - b. format of material  
☐ in written format  
☐ in computer readable form
  - c. time of filing/furnishing  
☐ contained in the international application as filed.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE  
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**Box No. V**      **Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Claims 1-8, 10-12, 14	YES
	Claims 9, 13	NO
Inventive step (IS)	Claims 2-7, 14	YES
	Claims 1, 8-13	NO
Industrial applicability (IA)	Claims 1-14	YES
	Claims	NO

**Citations and explanations:**

**NOVELTY (N) Claim 9, 13:**

(a)      WO 2003/083601 A2

Citation (a) discloses all the features of the claims 9 and 13 (see abstract, page 5, lines 15-27).

The features of remaining claims are not found in any single document published before the earliest priority date of the claims.

**INVENTIVE STEP (IS) Claims 1, 8-13:**

Claims 9, 13:    as above.

(b)      US 2003/0045270 A1

Citation (a) does not disclose features of the remaining claims, but when combined with citation (b), they disclose all the features of the following claims.

Claims 1, 8:      Citations (a) does not disclose features of mapping a geographical area covered by the wireless computer network into at least one island and measuring at least one network performance parameter for each island to obtain a spatial performance model. But when combined with citation (b), as would be obvious to a person skilled in the art, they disclose all the features of the claims. In citation (b) for mapping a geographical area into *at least one island* see para [0014] (ie "GLM may receive and store information pertaining to the *geographical location* of active or registered terminals"). Also for measuring at least *one network performance parameter* for each island in citation (b) see para [0016] (ie "may monitor the location and registration patterns of terminal 4 by retrieving the exact location of terminal 4 as well as probability distribution of location of terminal 4 from GLM 3 upon receiving a *registration request from terminal 4*").

Continuation in the Supplemental Box....

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**Supplemental Box**

In case the space in any of the preceding boxes is not sufficient.

Continuation of Box No V:

- Claim 10: The feature of "wireless access points" can be found in citation (b), para [0002] "the wireless service provider".
- Claim 11, 12: The feature of "at least one storage means comprising storage of network parameter values" is disclosed in citation (b), para [0003] "a detailed record of access to the wireless network services by her terminal or UIM".

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**Box No. VIII    Certain observations on the international application**

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

Claim 9 lacks clarity in that it includes reference to “the algorithm of the present invention” and “without having the computer network’s user having to be ...” when there is no earlier establishment of these features.